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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Howard J. Worman and Naoto Mamiya  
Serial No. : 09/407,430  
Filed : September 29, 1999  
For  : HCV E2 PROTEIN BINDING AGENTS FOR TREATMENT  
OF HEPATITIS C VIRUS INFECTION

#3  
122.00

1185 Avenue of the Americas  
New York, New York 10036  
November 18, 1999

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants would like to direct the Examiner's attention to the following disclosures, which are listed on Form PTO-1449 (Exhibit 1). Copies of the disclosures listed below as items 1-16 are attached hereto as Exhibits 2-17, respectively.

1. Alter, M.J. (1997) "Epidemiology of Hepatitis C" *Hepatology*, 26:625-655 (Exhibit 2);
2. Choo, Q.-L., et al. (1989) "Isolation of a cDNA clone derived from blood-borne nonA, nonB viral hepatitis genome" *Science*, 244:359-362 (Exhibit 3);
3. Choo, Q.-L., et al. (1991) "Genetic organization and diversity of the hepatitis C virus" *Proc. Natl. Acad. Sci. U.S.A.*, 88:2451-2455 (Exhibit 4);
4. Fields, S., and Song, O. (1989) "A novel genetic system to detect protein-protein interactions" *Nature*, 340:245-246 (Exhibit 5);
5. Fukushi, S., et al. (1997) "The sequence element of the internal ribosome entry site and a 25-kilodalton cellular

protein contribute to efficient internal initiation of translation of hepatitis C virus RNA" *J. Virol.*, 71:1662-1666 (Exhibit 6);

6. Kato, N., et al. (1990) "Molecular cloning of the human hepatitis C virus genome from Japanese patients with non-A, non-B hepatitis" *Proc. Natl. Acad. Sci. U.S.A.*, 87:9524-9528 (Exhibit 7);
7. Kuo, G., et al. (1989) "An assay for circulating antibodies to a major etiological virus of human non-A, non-B hepatitis" *Science*, 244:359-363 (Exhibit 8);
8. Lanford, R. E., et al. (1993) "Analysis of hepatitis C virus capsid, E1, and E2/NS1 proteins expressed in insect cells" *Virology*, 197:225-235 (Exhibit 9);
9. Mamiya, N., et al. (1997) "Epidemiology, prevention, clinical features and therapy of hepatitis B, C and G" *Current Opinion in Infectious Diseases* 10:390-397 (Exhibit 10);
10. National Institutes of Health Consensus Development Conference Panel Statement (1997) "Management of Hepatitis C" *Hepatology*, 26:2S-10S (Exhibit 11);
11. Okamoto, H., et al. (1991) "Nucleotide sequence of the genomic RNA hepatitis C virus isolated from a human carrier: comparison with reported isolates from conserved and divergent regions" *J. Gen. Virol.*, 72:2697-6704 (Exhibit 12);
12. Reynolds, J. E., et al. (1995) "Unique features of internal initiation of hepatitis C virus RNA translation" *EMBO J.*, 14:6010-6020 (Exhibit 13);

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Page 3

13. Rosa, D., et al. (1996) "A quantitative test to estimate neutralizing antibodies to the hepatitis C virus: cytofluorimetric assessment of envelope glycoprotein 2 binding to target cells" *Proc. Natl. Acad. Sci. U.S.A.*, 93:1759-1763 (Exhibit 14);
14. Selby, M. J., et al. (1993) "Expression, identification and subcellular localization of the proteins encoded by the hepatitis C viral genome" *J. Gen. Virol.*, 74:1103-1113 (Exhibit 15);
15. Takamizawa, A., et al. (1991) "Structure and organization of the hepatitis C genome isolated from human carriers" *J. Virol.*, 65:1105-1113 (Exhibit 16);
16. Yi, M., et al. (1997) "Delineation of regions important for heterotrimeric association of hepatitis C virus E1 and E2" *Virology*, 231:119-129 (Exhibit 17);

Applicants request that the Examiner review the references and make them of record in the subject application.

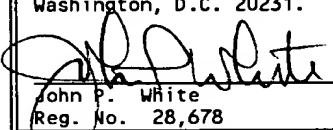
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Page 4

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. If any fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, D.C. 20231.	
 John P. White Reg. No. 28,678	11/8/99 Date